

# Chapter 2

## The International Monetary System

### ■ Learning Objectives

1. Learn how the international monetary system has evolved from the days of the gold standard to today's eclectic currency arrangement
2. Analyze the characteristics of an ideal currency
3. Explain the currency regime choices faced by emerging market countries
4. Examine how the euro, a single currency for the European Union, was created

### ■ Chapter Outline

- I. History of the International Monetary System
  - A. The Gold Standard, 1876–1913
  - B. The Interwar Years and World War II, 1914–1944
  - C. Bretton Woods and the International Monetary Fund, 1944
  - D. Fixed Exchange Rates, 1945–1973
  - E. The Floating Era, 1973–1997
  - F. The Emerging Era, 1997–Present
- II. IMF Classification of the Currency Regimes
  - A. Brief Classification History
  - B. The IMF's 2009 de facto System
    1. Category 1: Hard Pegs
    2. Category 2: Soft Pegs
    3. Category 3: Floating Arrangements
    4. Category 4: Residual
  - C. A Global Eclectic
- III. Fixed versus Flexible Exchange Rates
  - A. The Impossible Trinity
    1. Exchange rate stability
    2. Full financial integration
    3. Monetary independence
- IV. A Single Currency for Europe: The Euro
  - A. The Maastricht Treaty and the Monetary Union
  - B. The European Central Bank (ECB)
  - C. The Launch of the Euro
- V. Emerging Markets and Regime Choices
  - A. Currency Boards
    1. Argentina

- B. Dollarization
  - 1. Ecuador
- C. Currency Regime Choices for Emerging Markets
- VI. Globalizing the Chinese Renminbi
  - A. Two-Market Currency Development
  - B. Theoretical Principles and Practical Concerns
    - 1. The Triffin Dilemma
- VII. Exchange Rate Regimes: What Lies Ahead?

## ■ Questions

1. **The Gold Standard and the Money Supply.** Under the gold standard, all national governments promised to follow the “rules of the game.” This meant defending a fixed exchange rate. What did this promise imply about a country’s money supply?

Under the gold standard, the “rules of the game” were clear and simple. Each country set the rate at which its currency unit (paper or coin) could be converted to a weight of gold. A country’s money supply was limited to the amount of gold held by its central bank or treasury. For example, if a country had 1,000,000 ounces of gold and its fixed rate of exchange was 100 local currency units per ounce of gold, that country could have 100,000,000 local currency units outstanding. The system also had the effect of implicitly limiting the rate at which any individual country could expand its money supply. Any growth in the amount of money was limited to the rate at which official authorities could acquire additional gold.

2. **Causes of Devaluation.** If a country follows a fixed exchange rate regime, what macroeconomic variables could cause the fixed exchange rate to be devalued?

The following macroeconomic variables could cause the fixed exchange rate to be devalued:

- An interest rate that is too low compared to other competing currencies
- A continuing balance of payments deficit
- An inflation rate consistently higher than in other countries

3. **Fixed versus Flexible Exchange Rates.** What are the advantages and disadvantages of fixed exchange rates?

- Fixed rates provide stability in international prices for the conduct of trade. Stable prices aid in the growth of international trade and lessen risks for all businesses.
- Fixed exchange rates are inherently anti-inflationary, requiring the country to follow restrictive monetary and fiscal policies. This restrictiveness, however, can often be a burden to a country wishing to pursue policies that alleviate continuing internal economic problems, such as high unemployment or slow economic growth.
- Fixed exchange rate regimes necessitate that central banks maintain large quantities of international reserves (hard currencies and gold) for use in the occasional defense of the fixed rate. As international currency markets have grown rapidly in size and volume, increasing reserve holdings has become a significant burden to many nations.
- Fixed rates, once in place, may be maintained at rates that are inconsistent with economic fundamentals. As the structure of a nation’s economy changes, and as its trade relationships and balances evolve, the exchange rate itself should change. Flexible exchange rates allow this to happen gradually and efficiently, but fixed rates must be changed administratively—usually too late, too highly publicized, and at too large a one-time cost to the nation’s economic health.

4. **The Impossible Trinity.** Explain what is meant by the term *impossible trinity* and why it is true.

The impossible trinity are

1. Exchange rate stability,
2. Full financial integration, and
3. Monetary independence.

These qualities are termed the *impossible trinity* because a country must give up one of the three goals described by the sides of the triangle: monetary independence, exchange rate stability, or full financial integration. The forces of economics do not allow the simultaneous achievement of all three. For example:

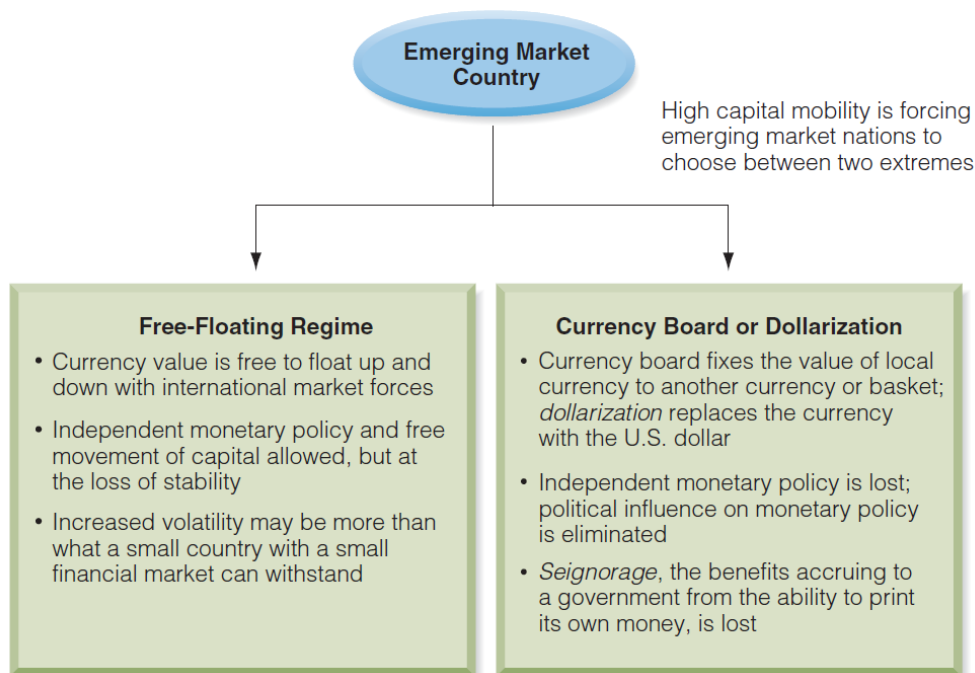
- Countries with tight control over capital inflows and outflows can retain their monetary independence and stable exchange rate but surrender being integrated with the world's capital markets.
- Countries with floating rate regimes can maintain monetary independence and financial integration but must sacrifice exchange rate stability.
- Countries that maintain exchange rate stability by having fixed rates give up the ability to have an independent monetary policy.

5. **Currency Board or Dollarization.** Fixed exchange rate regimes are sometimes implemented through a currency board (Hong Kong) or dollarization (Ecuador). What is the difference between the two approaches?

In a currency board arrangement, the country issues its own currency but that currency is backed 100% by foreign exchange holdings of a hard foreign currency—usually the U.S. dollar. In dollarization, the country abolishes its own currency and uses a foreign currency, such as the U.S. dollar, for all domestic transactions.

6. **Emerging Market Exchange Rate Regimes.** High capital mobility is forcing emerging market nations to choose between free-floating regimes and currency board or dollarization regimes. What are the main outcomes of each of these regimes from the perspective of emerging market nations?

There is no doubt that for many emerging markets, a currency board, dollarization, and freely floating exchange rate regimes are all extremes. In fact, many experts feel that the global financial marketplace will drive more and more emerging market nations toward one of these extremes. As illustrated by Exhibit 2.9 (in the chapter and reproduced here), there is a distinct lack of “middle ground” left between rigidly fixed and freely floating. In anecdotal support of this argument, a poll of the general population in Mexico in 1999 indicated that 9 out of 10 people would prefer dollarization over a floating-rate peso. Clearly, many in the emerging markets of the world have little faith in their leadership and institutions to implement an effective exchange rate policy.

**EXHIBIT 2.9 Regime Choices for Emerging Markets**

7. **Argentine Currency Board.** How did the Argentine currency board function from 1991 to January 2002 and why did it collapse?

From 1991–2002, Argentina's currency board structure fixed the Argentine peso's value to the U.S. dollar on a one-to-one basis. This ended in January of 2002 for several reasons. Argentine banks regularly paid slightly higher interest rates on peso-denominated accounts than on dollar-denominated accounts. This interest differential represented the market's assessment of the risk inherent in the Argentine financial system. Depositors were rewarded for accepting risk—for keeping their money in peso-denominated accounts. This was an explicit signal by the marketplace that there was a perceived possibility that what was then "fixed" would not always be so. The market proved to be correct. In January 2002, after months of economic and political turmoil and nearly three years of economic recession, the Argentine currency board was ended. The peso was first devalued from  $\text{Peso}1.00/\$$  to  $\text{Peso}1.40/\$$ , then floated completely. It fell in value dramatically within days. The devaluation followed months of turmoil, including continuing bank holidays and riots in the streets of Buenos Aires.

8. **The Euro.** On January 4, 1999, 11 member states of the European Union initiated the European Monetary Union (EMU) and established a single currency, the euro, which replaced the individual currencies of participating member states. Describe three of the main ways that the euro affects the members of the EMU.

The euro affects markets in three ways: (1) countries within the euro zone enjoy cheaper transaction costs; (2) currency risks and costs related to exchange rate uncertainty are reduced; and (3) all consumers and businesses both inside and outside the euro zone enjoy price transparency and increased price-based competition.

9. **Mavericks.** The United Kingdom, Denmark, and Sweden have chosen not to adopt the euro but rather maintain their individual currencies. What are the motivations of each of these countries that are also members of the European Union?

The United Kingdom, Denmark, and Sweden have strong political elements that are highly nationalistic. The United Kingdom chose not to adopt the euro because of the extensive use of the British pound in international trade and financial transactions. London is still the world's most important financial center. The British are also very proud of their long tradition in financial matters when "Britannia ruled the waves." They are afraid that monetary and financial matters may eventually migrate to Frankfurt, where the European Central Bank is located. The British are also worried about continued concentration of decision making in Brussels, where the main European Union institutions are located.

Denmark is also worried about losing its economic independence as a small country surrounded by big neighbors. Denmark's currency, the krone, is mostly tied to the euro anyway, so it does not suffer a misalignment with the primary currency unit of the surrounding economies. Sweden has strong economic ties to Denmark, Norway, and the United Kingdom, none of which adopted the euro so far. Sweden, like the others, is afraid of over concentration of power within European Union institutions.

10. **International Monetary Fund (IMF).** The IMF was established by the Bretton Woods Agreement (1944). What were its original objectives?

The IMF was established to render temporary assistance to member countries trying to defend the value of their currencies against cyclical, seasonal, or random occurrences. In addition, it was to assist countries having structural trade problems. More recently, it has attempted to help countries, like Russia and other former Soviet republics, Brazil, Indonesia, and South Korea, to resolve financial crises.

11. **Special Drawing Rights.** What are Special Drawing Rights?

The Special Drawing Right (SDR) is an international reserve asset created by the IMF to supplement existing foreign exchange reserves. It serves as a unit of account for the IMF and other international and regional organizations and is also the base against which some countries peg the exchange rate for their currencies. Defined initially in terms of a fixed quantity of gold, the SDR has been redefined several times. It is currently the weighted average of four major currencies: the U.S. dollar, the euro, the Japanese yen, and the British pound. The weights are updated every five years by the IMF. Individual countries hold SDRs in the form of deposits in the IMF. These holdings are part of each country's international monetary reserves, along with official holdings of gold, foreign exchange, and its reserve position at the IMF. Members may settle transactions among themselves by transferring SDRs.

12. **Exchange Rate Regime Classifications.** The IMF classifies all exchange rate regimes into eight specific categories that are summarized in this chapter. Under which exchange rate regime would you classify each of the following countries?

- a. France

Although France does not have a "domestic" currency, the euro is an independent floating currency.

- b. The United States

Independent floating.

- c. Japan

Independent floating.

- d. Thailand

Independent floating. Prior to the Asian Crisis of 1997, it was tied to the U.S. dollar.

13. **The Ideal Currency.** What are the attributes of the ideal currency?

If the ideal currency existed in today's world, it would possess three attributes, often referred to as the "impossible trinity": **Exchange rate stability:** The value of the currency would be fixed in relationship to other major currencies, so traders and investors could be relatively certain of the foreign exchange value of each currency in the present and into the near future. **Full financial integration:** Complete freedom of monetary flows would be allowed, so traders and investors could willingly and easily move funds from one country and currency to another in response to perceived economic opportunities or risks. **Monetary independence:** Domestic monetary and interest rate policies would be set by each individual country to pursue desired national economic policies, especially as they might relate to limiting inflation, combating recessions, and fostering prosperity and full employment. These qualities are termed "the impossible trinity" because a country must give up one of the three goals. The forces of economics do not allow the simultaneous achievement of all three.

14. **Bretton Woods Failure.** Why did the fixed exchange rate regime of 1945–1973 eventually fail?

The fixed exchange rate regime of 1945–1973 failed because of widely diverging national monetary and fiscal policies, differential rates of inflation, and various unexpected external shocks. The U.S. dollar was the main reserve currency held by central banks and was the key to the web of exchange rate values. The United States ran persistent and growing deficits in its balance of payments, requiring a heavy outflow of dollars to finance the deficits. Eventually, the heavy overhang of dollars held by foreigners forced the United States to devalue the dollar because the United States was no longer able to guarantee conversion of dollars into its diminishing store of gold.